

PLANTS OF ARIZONA: A NEW SPECIES OF ASTRAGALUS  
FROM THE KAIBAB PLATEAU

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ABSTRACT.—*Astragalus atwoodii* Welsh and Thorne is named and described on the basis of materials collected on the Kaibab Plateau in Coconino County, Arizona.

In his discussion of *Astragalus pinonis* Jones, Barneby (1964, Atlas of North American *Astragalus*, Mem. N.Y. Bot. Gard. 13:259–261) discussed the existence of two collections tentatively ascribed to that species. Both collections are from Coconino County, Arizona. The first one cited (Gooding 92–49) is from South Canyon, south of House Rock Valley, and has not been examined by us. The other (Swapp 37) is filed in the collection of BRY. Dr. N. D. Atwood's recent collections in both flower and in fruit have been compared to the Swapp specimen. The specimens are a close match and demonstrate that the differences in ovule number as noted by Barneby (1964) hold constant for the Arizona materials. Further, the pods are consistently more slender than noted for *A. pinonis* sens. str. The terminal leaflet, always jointed to the rachis in *A. pinonis*, is occasionally confluent in the leaves of specimens from Arizona. Thus, the features of the Kaibab plants vary in approximately the same degree of magnitude as in other species of the section *Lonchocarpus* as defined by Barneby (1964).

It is proposed, therefore, that the plants from Arizona be designated as a new species, named to honor Dr. N. D. Atwood, tireless collector and student of the Hydrophyllaceae.

*Astragalus atwoodii* Welsh and Thorne, sp.  
nov.

*Astragalo pinoni* Jones aemulans, differt

legumine angustiore (2.8–5.0, nec. 5.5–8.5 mm) et seminibus pauciore (18–22, nec 32–42).

Plantae perennes; caules erecti enascentes caudice subterraneis 1.9–5.7 dm altus, pilis basifixis adpressis; stipulae omnes distinctae; folia 0.6–9 cm longa; foliola (7) 9–17 (plerumque 13–17) linearia ad anguste oblonga obtusa ad rotundata 1.5–12.5 mm longa, 0.7–2.5 mm lata, foliolium terminale saepe confluentis; pedunculi 4–7.5 cm longi; racemi 2–15-floribus 2–11 cm longi in fructum; bracteae triangulari-subulatae 1–2.2 mm longae; pedicelli 1–2.5 mm longi; calyces 5–6.5 mm longi strigulosi, tuba campanulata 3.5–4 mm longo, dentibus triangulari-subulatis 1.1–2.6 mm longis; flores ex purpureo ochroleuci 8–11 mm longi; legumina effusidescendentes, subsessilia 21–34 mm longa 2.8–5 mm in diametros teretia vel dorsi-ventrali compressa strigosa rigide chartacei-coriacea brunnea grosse reticulata; ovula 18–22.

Holotype: Arizona, Coconino County, 17 miles southeast of Fredonia Sawmill, along logging road to Ryan, pinyon-juniper-cowaniana-big sagebrush community, N. D. Atwood 6794, 15 June 1976 (BRY, isotypes to be distributed). Additional specimens: Arizona, Coconino County; Kaibab Forest, T39 N, R1 E, Sec. 29, B. Swapp 37-S, 7 June 1926; do, 17 miles southeast of Fredonia Sawmill, N. D. Atwood 5053, 20 May 1973; do, 23 miles southeast of Fredonia Sawmill, N. D. Atwood 5055, 20 May 1973 (all BRY).

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Fig. 1. *Astragalus atwoodii* Welsh and Thorne (x 1), drawn from Atwood 6794 and 5055 (BRY).